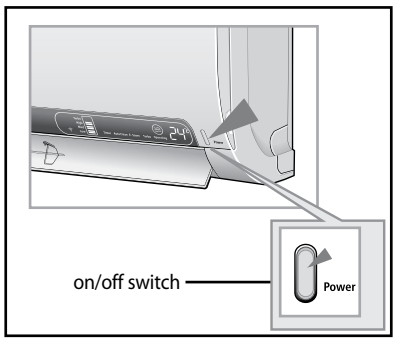
3. Alignment and Adjustments

3-1 Test Mode

■ How to Approach Test Mode

You can approach the Test Mode by pressing the on/off switch of indoor unit for 5 seconds.



■ Test Mode Operation Option

After installing the air conditioner, check whether each subordinate is normally operated or not by operating the Test Mode.

- **Temperature Display Part :** Display the set option at one-second intervals. (Only for models having the temperature display part)
  ex) 0b0000-1730F8 : 0b→00→00→17→30→F8→0b ...(Repeat)
- **When an error occurs, display the Error Mode.**

<table>
<tr><th colspan="4">LED Display</th><th rowspan="3">Cause</th><th rowspan="3">Follow-up Measures</th></tr>
<tr><th rowspan="2">Waiting Operation</th><th colspan="3">LAMP</th></tr>
<tr><th>OPERATION</th><th>TIMER</th><th>TURBO</th></tr>
<tr><td>OFF</td><td>○</td><td>◑</td><td>○</td><td>Indoor temperature sensor error (OPEN/SHORT)</td><td rowspan="2">• Check assembling status of the sensor part's connector on the indoor unit main PCB
• Measure the resistance value on both sides – connector no. 1 and no. 2 (E1), no. 3 and no. 4 (E2) – by separating the sensor part's connector
<table><tr><th>Temp. (°C)</th><th>Resistance Value(KΩ)</th><th>Temp. (°C)</th><th>Resistance Value(KΩ)</th><th>Others</th></tr><tr><td>15</td><td>14.68</td><td>30</td><td>8.31</td><td rowspan="3">The error of DATA is ±2%.</td></tr><tr><td>20</td><td>12.09</td><td>35</td><td>6.94</td></tr><tr><td>25</td><td>10.00</td><td>40</td><td>5.83</td></tr></table>* If not meet the above DATA, replace sensors.</td></tr>
<tr><td>OFF</td><td>◑</td><td>◑</td><td>○</td><td>Indoor heat exchanger temperature sensor error (OPEN/SHORT)</td></tr>
<tr><td>OFF</td><td>◑</td><td>○</td><td>◑</td><td>Indoor fan motor speed detecting error (Occur when it continues for 15 seconds at below 450rpm)</td><td>• Check assembling status of the Motor Hall IC output connector (CN44) on the indoor unit main PCB</td></tr>
<tr><td>OFF</td><td>○</td><td>◑</td><td>◑</td><td>EEPROM error (Option memory)
* Display only for models having the returning function for the power failure</td><td>• Reset options
• Replace the PCB</td></tr>
<tr><td>Blink all lamps</td><td>◑</td><td>◑</td><td>◑</td><td>When there is an option related error
When options are not set
When there is an option data error</td><td>• Reset options</td></tr>
</table>

■ Test Mode Operation Option(cont.)

- **Operation Mode :** Cool mode. Operate the cool mode by operating the compressor by force without the compressor ON/OFF according to the set temperature/indoor temperature. (Do not follow the antifreeze control)
- **Up-down louver :** Up-down swing mode
- **Indoor Fan :** High

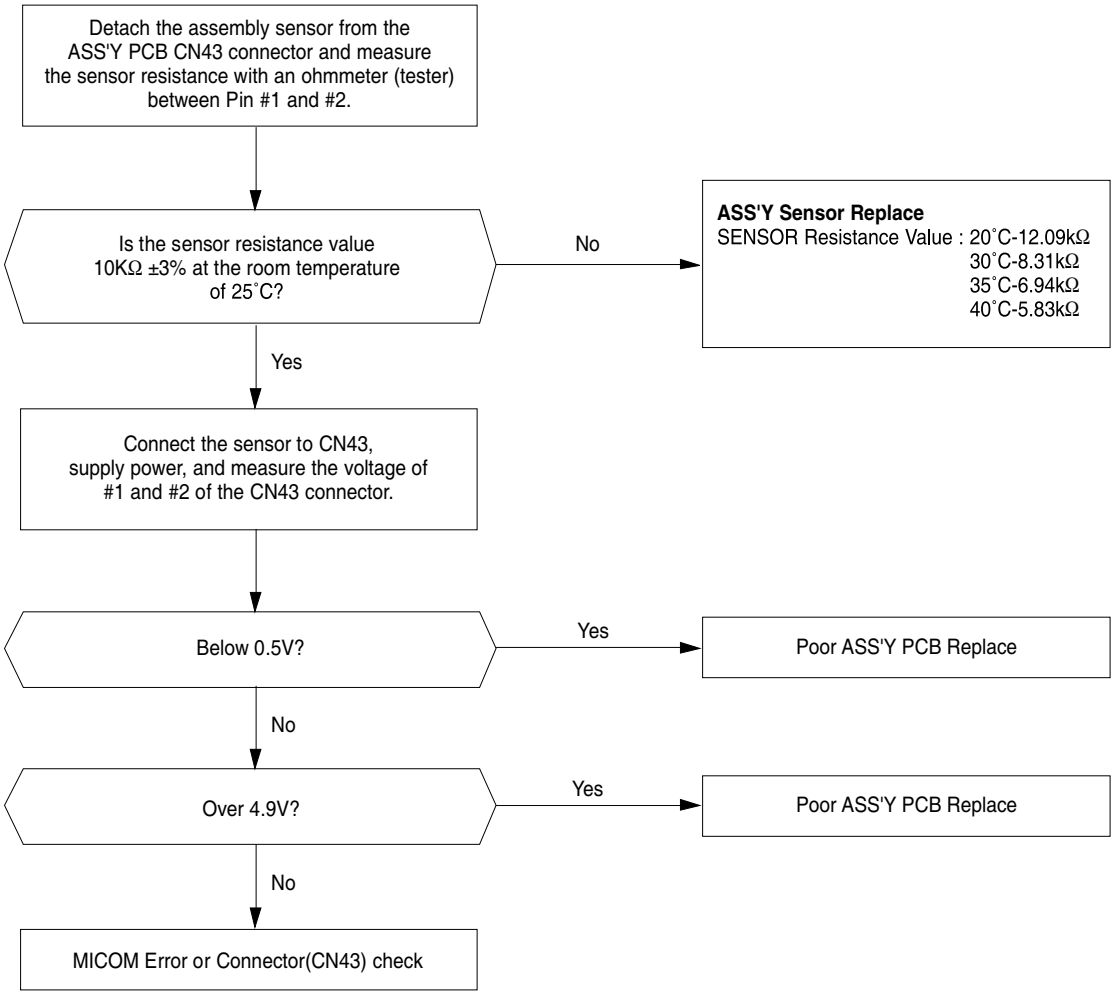
- Because the Test Mode operate the cool mode by force not related to the set temperature / indoor temperature, check whether each subordinate is operated normally or not after completing installation and must turn off the power of the air conditioner.

3-2 Error Mode and Check Method

Error Mode	LAMP	7-segment Display
Indoor unit room temperature sensor error (open or short)		E1
Indoor unit heat exchanger temperature sensor error (open or short)		E2
Indoor fan motor malfunction		E3
EEPROM error		E6
Option error (option wasn't set up or option data error)		Display Flickering

3-2-1 Room temperature sensor Error

Error Mode	LAMP	7-segment Display
Indoor unit room temperature sensor error(open or short)		E1


Detach the assembly sensor from the ASS'Y PCB CN43 connector and measure the sensor resistance with an ohmmeter (tester) between Pin #1 and #2.
Is the sensor resistance value 10KΩ ±3% at the room temperature of 25˚C?
No
ASS'Y Sensor Replace
SENSOR Resistance Value : 20˚C-12.09kΩ
30˚C-8.31kΩ
35˚C-6.94kΩ
40˚C-5.83kΩ
Yes
Connect the sensor to CN43, supply power, and measure the voltage of #1 and #2 of the CN43 connector.
Below 0.5V?
Yes
Poor ASS'Y PCB Replace
No
Over 4.9V?
Yes
Poor ASS'Y PCB Replace
No
MICOM Error or Connector(CN43) check

3-2-2 Room Pipe sensor Error

Error Mode	LAMP	7-segment Display
Indoor unit heat exchanger temperature sensor error (open or short)		E2

1. Check the assembly condition of the sensor connector(CN43) on the indoor unit Main PCB and if not assembled, reassemble the connector accurately.

2. Detach the room pipe sensor connector(CN43) and check the resistance between Pin #3 and #4.

Temperature(˚C)	Resistance Value(Kohm)	Temperature(˚C)	Resistance Value(Kohm)	Others
15	14.68	30	8.31	The data tolerance is ±3%.
20	12.09	35	6.94	
25	10	40	5.83	

   If the above data is not met, replace the room pipe sensor.

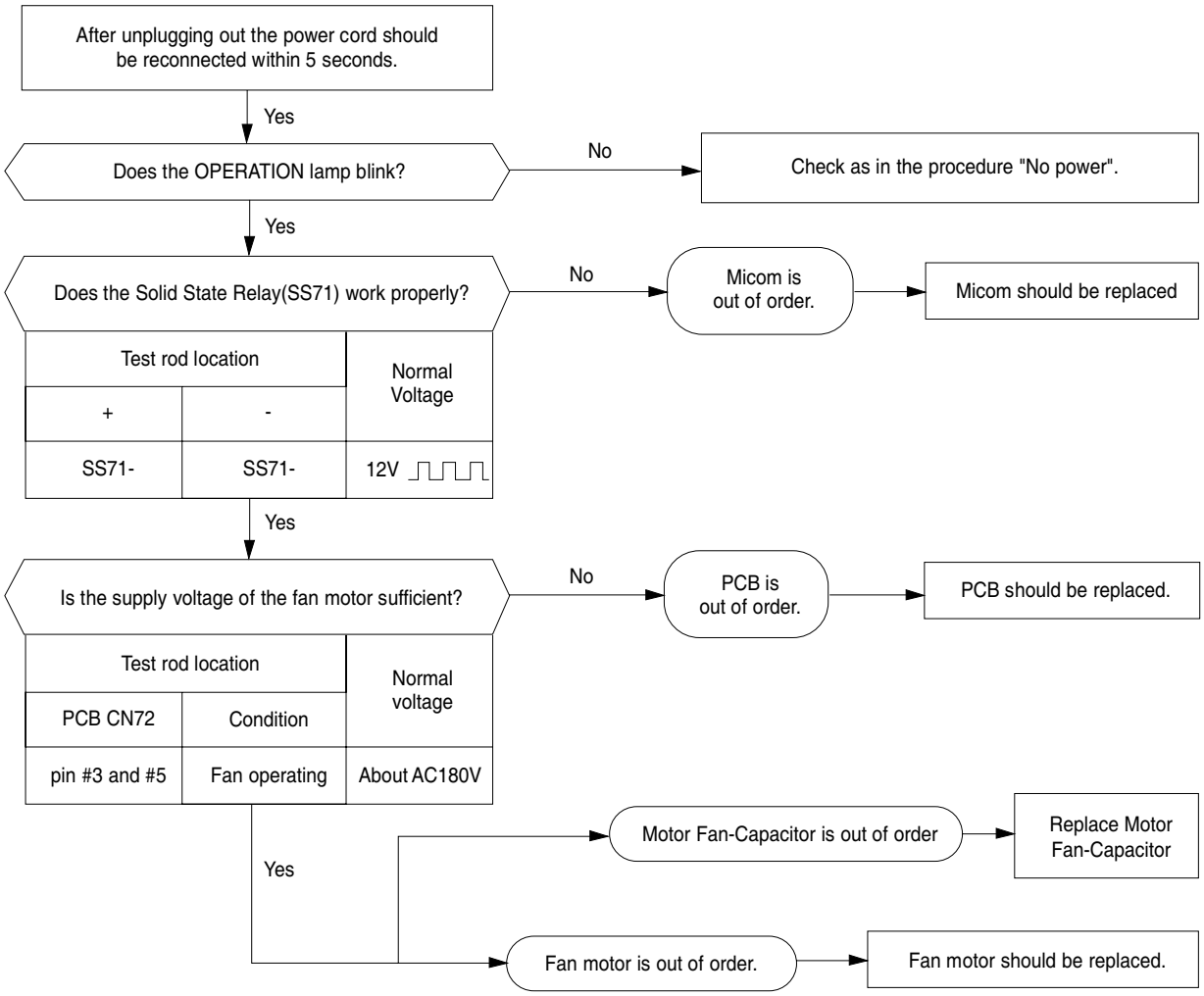
3. Assemble the room pipe sensor to PCB, plug in, and check the voltage of connector 3 and 4. If the resistance is below 0.5V or over 4.9V, replace the indoor Main PCB. (short or disconnected in the PCB board)

3-2-3 Indoor Unit Fan Motor Error

Error Mode	LAMP	7-segment Display
Indoor Unit Fan Motor Malfunction		E3

1. Checklist :
   1) Is the indoor unit fan motor properly connected with the connector (CN72)?
   2) Is the AC voltage correct?
   3) Is HALL IC in indoor fan motor properly connected with the connector (CN44)?
   4) Is the running capacitor (CR71) properly connected with PCB board?

2. Troubleshooting procedure



3-3 Setting Option Setup Method

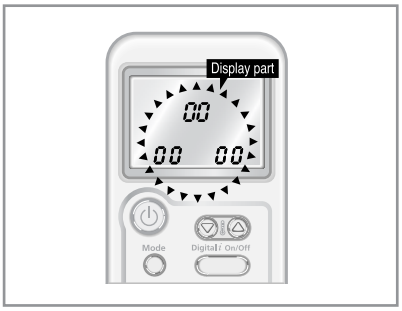
ex) Option No. : 066064- 170373

Step 1 : **Enter the Option Setup mode.**

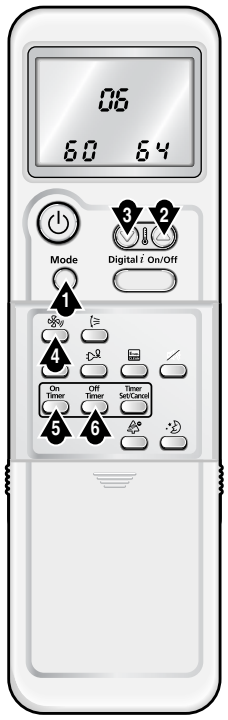
1st Take out the batteries of remote control.

2nd Press the temperature button simultaneously and insert the battery again.

3rd Make sure the remocon display shown as 00 00 00.



Step 2 : **Enter the Option Setup mode and select your option according to the following procedure.**



✳ Setting is not required if you must 0 a value which has a 0 default.

1

The default value is 00 00 00.
Otherwise, push the Mode button to 0.
Every time you push the button, the display panel reads 1 or 0 repeatedly.

2

Push the button to set the display panel to 6.
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ · · · 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

3

Push the button to set the display panel to 6.
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ · · · 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

4

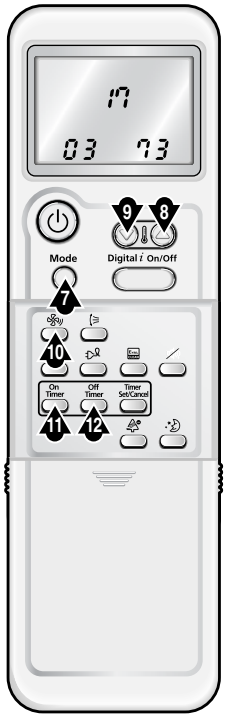
Push the button to set the display panel to 0.
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ · · · 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

5

Push the On Timer button to set the display panel to 6.
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ · · · 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

6

Push the Off Timer button to set the display panel to 4.
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ · · · 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.



✳ Setting is not required if you must 0 a value which has a 0 default.

7 Press Mode button, then the default value is 10 00 00.

8 Push the button to set the display panel to 1.
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ ··· 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

9 Push the button to set the display panel to 0.
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ ··· 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

10 Push the button to set the display panel to 3.
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ ··· 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

11 Push the On Timer button to set the display panel to 1.
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ ··· 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

12 Push the Off Timer button to set the display panel to 3.
Every time you push the button, the display panel reads 0 ➡ 1 ➡ 2 ➡ 3 ➡ ··· 9 ➡ A ➡ b ➡ c ➡ d ➡ E ➡ F repeatedly.

Step 3 : Upon completion of the selection, check you made right selections.

Press the Mode Selection key, Mode to set the display part to 0 and check the display part.

➡ The display part shows 60 06 64.

Press the Mode Selection key, Mode to set the display part to 1 and check the display part.

➡ The display part shows 03 11 13.

Step 4 : Pressing the ON/OFF button ( )

When pressing the operation ON/OFF key with the direction of remote control for unit, the sound "Ding" or "Diriring" is heard and the OPERATION ICON( ) lamp of the display is flickering at the same time, then the input of option is completed. (If the diriring sound isn't heard, try again pressing the ON/OFF button.)

Step 5 : Unit operation test-run

First, Remove the battery from the remote control.

Second, Re-insert the battery into the remote control.

Third, Press ON/OFF key with the direction of remote control for set.

• Error Mode

1st If all lamps of indoor unit are flickering, plug out, plug in power plug again and press the ON/OFF key to retry.

2nd If the unit is not working properly or all lamps are continuously flickering after setting the option code, see if the correct option code is set up for its model.

■ OPTION ITEMS

REMOCON / MODEL	SEG1	SEG2	SEG3	SEG4	SEG5	SEG6	SEG7	SEG8	SEG9	SEG10	SEG11	SEG12
AQ09MSBN	0	6	7	0	1	4	1	7	0	2	4	E
AQ12MSBN	0	6	0	0	0	0	1	5	0	2	4	E
AQ18MSBN	0	8	7	0	2	7	1	8	0	3	8	2
AQ24MSBN	0	8	0	0	0	0	1	8	0	3	8	2